DELETED ADENOVIRUS VECTORS AND METHODS OF MAKING AND ADMINISTERING THE SAME

Abstract

The present invention provides deleted adenovirus vectors. The inventive adenovirus vectors carry one or more deletions in the IVa2, 100K, polymerase and/or preterminal protein sequences of the adenovirus genome. The adenoviruses may additionally contain other deletions, mutations or other modifications as well. In particular preferred embodiments, the adenovirus genome is multiply deleted, *i.e.*, carries two or more deletions therein. The deleted adenoviruses of the invention are "propagation-defective" in that the virus cannot replicate and produce new virions in the absence of complementing function(s). Preferred adenovirus vectors of the invention carry a heterologous nucleotide sequence encoding a protein or peptide associated with a metabolic disorder, more preferably a protein or peptide associated with a lysosomal or glycogen storage disease, most preferably, a lysosomal acid α-glucosidase. Further provided are methods for producing the inventive deleted adenovirus vectors. Further provided are methods of administering the deleted adenovirus vectors to a cell *in vitro* or *in vivo*.